Preliminary Draft

District of Columbia Health Profile Chapter

District of Columbia State Health Systems Plan

State Health Planning and Development Agency
District of Columbia Department of Health

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DISTRICT OF COLUMBIA HEALTH PROFILE

I. INTRODUCTION

Maintaining good health and wellness for individuals and communities depends not only on health care for the sick but also on providing opportunities to prevent health problems and improve the basic health and well-being of residents. A measure of the relative health of the total population of a community is its health profile or health status. Together with demographic and socioeconomic data, health status indicators provide the basic information for defining the community's health needs and assessing the manner in which the health care system can meet those needs.

Various national authorities have identified health status indicators to assess and measure community health needs. The Centers for Disease Control and Prevention (CDC) uses 18 indicators for the general assessment of community health status (See MMWR in 1991). In its annual State Health Profile series, the CDC presents statistical data at the state level in these 18 topic areas. In response to the national commitment announced by President Clinton in 1998 to the elimination of health disparities by the year 2010, the federal Department of Health and Human Services (DHHS) developed a list of seven leading health priorities reflective of areas in which minority populations experienced the most serious disparities in health access and outcomes: infant mortality, cancer screening and management, cardiovascular disease, diabetes, HIV/AIDS, immunizations, and mental health.

At the same time as the federal *Healthy People 2010 Plan* was released in the year 2002, the DHHS Office of Disease Prevention and Health Promotion released a list of 10 leading health indicators selected for nationwide tracking, "based on their ability to motivate action, the availability of data to measure their progress, and their relevance as broad public health issues." The 10 leading health indicators are physical activity, overweight and obesity, tobacco use, substance abuse, responsible sexual behavior, mental health, injury and violence, environmental quality, immunization, and access to health care. All of these indicators are of concern to the Department of Health (DOH), but its selection of health priority areas was governed by the health demands of District of Columbia residents and known or proposed resources to meet those demands.

Modeled on the federal *Healthy People 2010 Plan*, twenty-one priority focus areas were selected for the District of Columbia by DOH program administrators for development of intervention strategies and tracking of progress in the Department of Health's District of Columbia Healthy People 2010 Plan for residents in 1998. These focus areas were selected for the 2010 Plan based on the service gaps and health needs identified in the review of progress attained at the program level in each of the focus areas addressed in the District's Healthy Residents 2000 Plan. The twenty-one focus areas are listed in alphabetical order as follows:

Asthma	Injury/Violence Prevention
Cancer	Maternal, Infant and Child Health
Cardiovascular Disease and Stroke	Mental Health and Mental Disorders
Diabetes	Nutrition
Disabilities	Primary Care
Emergency Medical Care	Public Health Infrastructure
Environmental Health	Sexually Transmitted Diseases
Health Care Finance	Substance Abuse
HIV/AIDS	Tobacco
Immunization	Tuberculosis

Each focus area chapter in the District's 2010 Plan is developed by the responsible DOH administrators working with program advisory groups from community-based organizations (CBOs). Liaisons from each focus area programs worked with the SCHSA team of statisticians and program analyst on all aspects of the 2010 Plan and its Annual Implementation Plan.

After reviewing available data in conjunction with the Leading Health Indicators as defined by the CDC and DHHS and twenty-one focus areas in the DC Healthy People Plan, which provided an organized frame of reference, the DOH chose to discuss the health status of residents according to the following headings: population and demographic characteristics; life expectancy; disparities in health; health behaviors and risk factors; natality; morbidity, mortality, and occupational health.

II. POPULATION AND SOCIOECONOMIC CHARACTERISTICS

This section provides a demographic and socioeconomic profile of the District of Columbia. The profile is tailored to help the reader to examine and understand issues of the city's health within proper context. Statistics are provided for population counts and projections. Other important health related population characteristics such as age distribution, gender, race and ethnicity, income, employment status and household characteristics are also provided. Significant changes in population characteristics will shape future health care efforts and policy in the District. Whenever possible an attempt is made to compare data and information from the most recent year available (2000) to figures from 1990 in order to determine the direction of change. Where recent figures are unavailable, estimates are developed based on assumptions and established procedures that are described.

Geography

The District is the urban center of the Washington Metropolitan Statistical Area (MSA). The city is bordered by Arlington County and the city of Alexandria in Northern Virginia, Montgomery and Prince George's counties, in Maryland, and the Potomac River.

Overall Population and Trends

In 2000 the District had become home to about 572,059 culturally and ethnically diverse residents whose nationalities are representative of many different world cultures. The District's population grew steadily between 1940 and 1950 (Table 1) to reach a high of 802,178 persons. Out-migration reduced the population by 16percent, from its 1950 high, down to 638,333 persons by 1980. The downward population trend continued in the District and by 1990 the population had declined to 606,900. The population count for 2000 was 572,059 representing a 5.7 percent decrease from the 1990 figure. The U.S. Bureau of the Census has predicted that the District's population will begin increasing again by the year 2005 and projects the population to grow to 702,000 by the year 2025.

Table 1 Overall Population Trend in the District of Columbia and Projections

Year	1940	1950	1960	1970	1980	1990	2000	2010*	2020*
Population	663,091	802,178	763,956	756,510	638,333	606,900	572,059	597,000	625,000

* Bureau of the Census Projections

Population by Ward

Despite their original intent as political subdivisions for the purpose of voting and representation, the eight wards of the District now provide a useful mechanism for analyzing and comparing sub-populations and for analyzing trends in the changing health status of residents. The average number of residents per Ward in 2000 was 71,506, down 5.7 percent from the 1990 average of 75,861. The largest number of residents (74,937) resided in Ward 4 and Ward smallest number (68,037) lived in Ward 6 in 2000 (Table 2). The wards are geographically, economically and ethnically diverse and care should be taken to understand the similarities and differences when comparisons are made. The city is also divided into Census tracts drawn by the U.S. Bureau of the Census and updated after each decennial census to represent approximately 3,200 people. In 1980 the city had 182 census tracts, the number grew to 192 in 1990 and fell to 188 in 2000.

There is significant variation in the race distribution of the population by Ward in the District of Columbia. In 2000 Ward 7 had the largest proportion (97 percent) of Blacks/African Americans and the lowest proportion (1.4 percent) of Whites. By contrast Ward 3 had the lowest proportion (6.3 percent) of Blacks/African Americans and the largest proportion (83.6 percent) of Whites. These differences are important when assessing the incidence and rates of certain health indicators that are known to vary significantly by race and ethnicity. Table 2 presents a more complete picture of the distribution of race by Ward for 2000.

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Table 2. Distribution of District of Columbia Population by Single Race and Hispanic Origin* by Ward in 2000 (number and percent)

Ward	Total Population	Single Race						Two or more races	Hispanic/ Latino
		White	Black	American Indian/Alaska Native	Asian	Native Hawaiian and Other Pacific Islander	Some Other Race		
City	572,059	176,101	343,321	1,713	15,189	348	21950	13,446	44,953
	100.0%	30.8%	60.0%	0.3%	2.7%	0.1%	3.8%	2.4%	7.9%
1	80,014	28,138	34,581	401	2,875	54	10,450	3,515	18,750
	100.0%	35.2%	43.2%	0.5%	3.6%	0.1%	13.1%	4.4%	23.4%
2	82,845	46,570	25,206	285	5,730	109	2,672	2,273	7,155
	100.0%	56.2%	30.4%	0.3%	6.9%	0.1%	3.2%	2.7%	8.6%
3	79,566	66,537	5,049	148	4,214	42	1,561	2,015	5,138
	100.0%	83.6%	6.3%	0.2%	5.3%	0.1%	2.0%	2.5%	6.5%
4	71,393	7,332	55,628	235	612	29	5,368	2,189	9,158
	100.0%	10.3%	77.9%	0.3%	0.9%	0.0%	7.5%	3.1%	12.8%
5	66,548	5,268	58,706	205	539	16	769	1,049	1,666
	100.0%	7.9%	88.2%	0.3%	0.8%	0.0%	1.2%	1.6%	2.5%
6	65,457	17,776	44,992	157	821	39	529	1,080	1,585
	100.0%	27.2%	68.7%	0.2%	1.3%	0.1%	0.9%	1.6%	2.4%
7	64,704	902	62,677	146	118	16	219	626	589
	100.0%	1.4%	96.9%	0.2%	0.2%	0.0%	0.3%	1.0%	0.9%
8	61,532	3,578	56,477	136	280	43	319	699	912
	100.0%	5.8%	91.8%	0.2%	0.5%	0.1%	0.5%	1.1%	1.5%

*Persons of Hispanic origin may be of any race. Each race category contains persons of both Hispanic and non-Hispanic origin.

Prepared by D.C. Office of Planning/State Data Center

Source of Data: U.S. Census Bureau

Age Distribution

Age and gender differences between wards may account for variances in the incidence and rates of certain diseases and health problems. Younger residents are often the victims of violent crimes and tend to suffer from issues such as substance abuse, STDs and HIV/AIDS, sports related injuries, motor vehicle related injuries and disabilities. Older adults are more likely to suffer from cancers, heart disease, diabetes, and chronic pain. There are also gender based health issues such as: breast and cervical cancers for women as opposed to prostate and testicular cancers for men. As a result age and gender differences between geographic divisions tend to have implications for targeted health policy and health interventions.

In 2000 the proportion of young people in the District that were under age 18 was 20.1 percent compared to the nation's average of 25.7 percent for the same age group. For the elderly (65 years and over) the District figure for 2000 was 69,898 (12.2 percent) compared to 12.4 percent for the nation as a whole. Elderly women numbered 43,355 (7.6 percent of the population) and elderly men amounted to 26,543. This leaves the District with 67.7 percent of its residents in the18-64 age range compared to 61.9 percent for the country.

Gender

The District's population has historically been approximately evenly divided between males and females. Females (302,693) represented 52.9 percent of the total population in 2000 while the male proportion of the population was 47.1 percent for a count of 269,366. The median age was 34.6 years in 2000. Sex distribution changes with age. In the 0-19 age group, there were slightly more males in the city (about 50.5 percent) than females (49.5 percent) in 1997; however, in the 20-64 age range females (about 52 percent) outnumbered males (about 48 percent). More interestingly, in the elderly age group (65 years and over) females (63 percent) far outnumbered males (37 percent) suggesting that women were living longer than men.

Race

For many years health scientists have sought to explain the observed differences in the nature and incidence of diseases and illnesses between residents of different racial and ethnic groups in the country. Minority populations have suffered disproportionately from various diseases and ailments in the country and have generally had less access to health care and treatment. With a large minority population of over 67 percent, the District's health status indicators should not only be compared with those of states, but also with similar sized urban jurisdictions with significant minority populations. There are also substantial differences in the racial and ethnic composition of residents between

wards. This must also be taken into account when interpreting ward specific health statistics.

The decrease in the resident population has resulted in an overall change in the population distribution by race and ethnicity. The net loss due to out-migration has affected all races but the largest decline occurred among the city's Black/African American residents. The 2000 population figures revealed that Black/African American residents comprised the city's largest racial group numbering 343,312 and representing 60 percent of the District's population total. This number however, represents a 14.7 percent decline from the 1990 Black/African American population of 402,472, which was 66 percent of the District's overall population of 606,900 in that year. By comparison the District's White population in 2000 (176,101) fell by a relatively smaller fraction (8 percent) over the same period from the 1990 number of 191,321. Figure 1 presents long-term trends in the distribution of the Black/African American and White populations in the city.

According to the 2000 population census, Asian and Pacific Islanders were the second fastest growing racial group since 1990. The Asian and Pacific Islanders population increased by 26 percent from a total of 11,556 residents in 1990 to 15,637 residents in 2000. By 2000 Asian and Pacific Islanders comprised 2.8 percent of the District's population compared to 2 percent in 1990. The Hispanic/ Latino population was the fastest growing group between the 1990 and 2000 census. This group grew by 27.2 percent from a population total of 32,710 in 1990 to 44,953 in 2000. By 2000 the Hispanic population had grown to 7.9 percent of the District's total compared to 5 percent in 1990.

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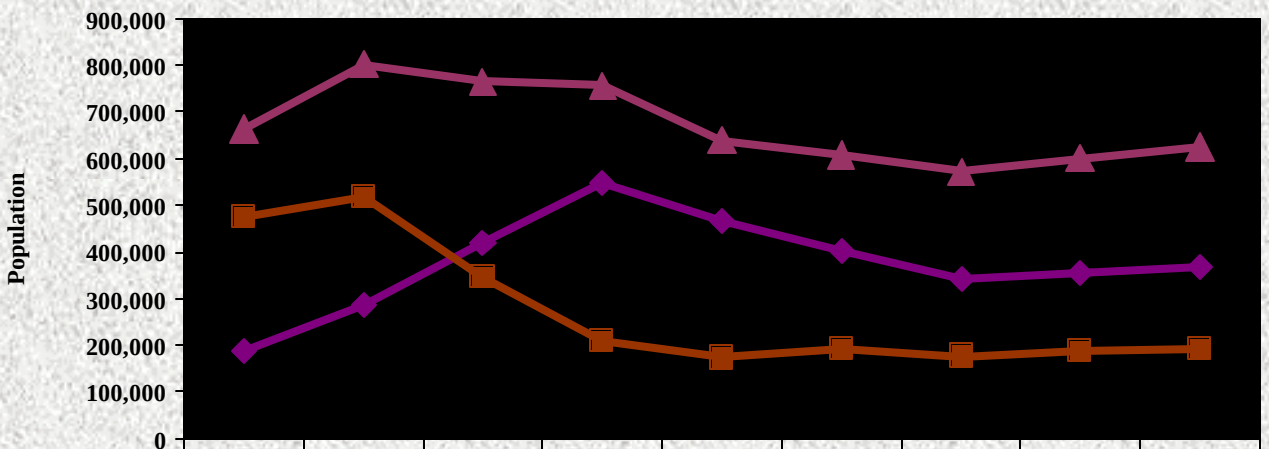
Figure 1. Long-Term Trends and Projections in the Black and White Population Distribution in the District if Columbia, 1940-2010



	1940	1950	1960	1970	1980	1990	2000	2005	2010
Black	188,765	284,313	418,693	547,238	466,565	402,472	343,312	354,000	368,000
White	474,326	517,865	345,263	209,272	171,768	191,321	176,101	186,000	193,000
Total	663,091	802,178	763,956	756,510	638,333	606,900	572,059	600,000	625,000

Note: Figures for 2005 and 2010 are projections based on US Census Bureau forecasts that indicate the population of DC to reach 702,000 by the year 2025.
Source: U.S. Census Bureau

SOCIO-ECONOMIC FACTORS

Social and economic factors such as martial status, living arrangements, income and poverty status and education are known to affect health conditions in several ways. Low socioeconomic status (SES) is a shorthand label that encompasses individuals and family groups who have poorly paid jobs or are unemployed, families and individuals living in substandard housing, and families more likely to have only a single parent in residence. Health disparities almost always exist between poor people and those with higher incomes. For virtually all of the chronic diseases that lead the nation's list of killers, low income is a special risk factor. For example the risk of death from heart disease is more than 25 percent higher for low-income people than for the overall population. Planning to improve heath must take into consideration SES factors that may act as barriers to the implementation of health policy and interventions.

Marital Status

There were 3,086 marriages in the District in 2000. This number was down 37.6 percent from the number in 1990 of 4,947. In 2000 the marriage rate per 1,000 population was 5.4 compared to the rate of 8.2 in 1990. Using the percent of births to married women as a proxy (62.3 percent of the women who gave birth in 1998 were unmarried). Census figures indicate that among population 15 years and over (474,417) 48.4 percent or 229,806 residents were never married, compared to 141,992 (29.9 percent) that were married. Separations amounted to 19,746 (4.2 percent) while 36,829 (7.8 percent) were widowed. The number of divorces in 2000 was 46,044 (9.7 percent). These figures are in stark contrast to the national data that indicate about 60 percent of the births occurred to married women on average. The District figure is more consistent with the marital status of Black/African American women in the country who gave birth in 1998. In 1998 about 42 percent of the Black/African American women who gave birth in the United States were married.

Race also seems to be a key factor in the distribution of marital status by ward. Only 5.5 percent of the women from Ward 3 (were there is a 89.2 percent White population) who gave birth in 1998 were unmarried. This is contrasted to 82.9 percent unmarried women from Ward 8 (where there is a 89.6 percent Black/African American population) who gave birth in 1998,

Income

Median family and per capita incomes in the District have always been relatively high when compared to the states in the US. In 1999, the District's per capita income was listed at $28,659 compared to the US average of $21,587. The 1999 figure was only 3.6 percent higher than the 1990 per capita income of $27,603. The median household income in the District for 1999 was $40,127 compared to the US average of $41,994. This figure represents a 23.4 percent increase over the 1990 figure of $30,727.

Income distribution by ward remained fairly stable over the 1990-1998 period. In 1990 Ward 3 had the highest median household income at $48,967. In 1998 Ward 3 also had the largest median household income of $79,832. The lowest median household income in 1990 ($21,312) was found in Ward 8. By 1998, ward 8 still recorded the lowest median household income of $27,078.

Poverty

The poverty rate in the District of Columbia is listed at 20 percent for 2000 up from 17 percent in 1990. Poverty also varies substantially by Ward. In 2000, Ward 8 had the highest poverty rate of 36 percent compared to 27 percent in 1990. Ward 3 had the lowest poverty rate of 7.4 percent in 2000.

Unemployment

Unemployment figures are strong indicators of residents' ability to obtain adequate health care. Most people obtain health insurance coverage through their jobs and loose coverage when they become unemployed. While Medicaid provides coverage for those who qualify, Medicaid enrollment is not automatic for those who qualify and for various reasons many who qualify go uninsured and underinsured. Unemployment also points to stress, poor nutrition, poor living conditions, and other factors that may affect the health and well being of city residents.

The unemployment rate for the District in 2000 was 11 percent. However, as shown in Table 3, there were significant differences in the unemployment rate among Wards. Ward 8 had the highest unemployment rate of 22 percent meaning that 1 out of every 5 persons in ward 8 were unemployed in 2000. Ward 5 (15 percent) and Ward 7 (14 percent) also had alarmingly high unemployment rates. Whereas, Ward 4 had the lowest unemployment rate (6.6 percent) in the city.

Table 3. Unemployment Rates by Ward in the District of Columbia, 1980, 1990, & 2000

Unemployment	Ward							
Years	Ward 1	Ward 2	Ward 3	Ward 4	Ward 5	Ward 6	Ward 7	Ward 8
1980	7.7	4.1	3.0	5.5	7.1	7.6	28.6	10
1990	7.0	4.8	2.4	6.2	9.2	8.2	8.1	13
2000	7.5	8.2	9.6	6.6	15.0	9.6	14	22

Note: Figures are in Percentages
Source: DC Neighborhood Information Service

Education

The 2000 census indicates that about 79,169 (20.6 percent) of district residents are high school graduates. This number is down 8.7 percent from the 1990 figure of 86,756 (21.2 percent). By 2000, 59,281 (15.4 percent) of District residents had some college experience but no degrees, 10,599 residents or 2.8 percent had associate degrees, 69,496 (18.1 percent) obtained a bachelor's degree, and 70,393 (17.2 percent) had a graduate or professional degree. These numbers are very similar to the 1990 numbers, indicating no significant changes in educational achievement rates in the District over the past 10 years. Significant differences exist when educational achievement is examined by race. These figures also show that 93.0percent of the District's White population, 25 years of age and older, were high school graduate or higher compared to 63.8 percent for Black/African Americans/African Americans. A much larger proportion of Whites (69 percent) also had a bachelor's degree or higher compared to the Black/African American population, where only 15.3 percent had a bachelor's degree or higher

Housing Characteristics

Housing characteristics in the District may provide markers for certain health risks as well as serve as a proxy for living conditions, poverty status and wealth. Figures from the 1999 statistical abstract of the United States reveal that homeownership rates in the District are on the average much lower than the national rates. In 2000, the homeownership rates in the District stood at 40.8 percent compared to 66.2 percent for the U.S. 36.4 percent, which was a full 75 percent, lower than the nation where the average homeownership rate was 63.9 percent. By 2000 the gap between the District and national homeownership rates had closed to 65 percent, homeownership rates for the District had increased to 40.3 percent, while the national rate had increased to 66.3 percent. The number of persons per household for 2000 was 2.16 compared to the national average of 2.59.

The number of housing units in the District declined from 278,489 in 1990 to 274,845 in 2000. The most recent population estimates available indicate that about 35 percent of these units are owner occupied while renters occupied about 54 percent and about 11 percent are vacant.

III. LIFE EXPECTANCY

As a health status indicator, life expectancy is a comparative measure of longevity and often used to gauge the overall health of a population. Life expectancy is the average number of years remaining to be lived by those surviving to that age on the basis of a given set of age-specific rates of dying. However, life expectancy at birth represents the average number of years that a group of infants would live if the infants were to experience throughout life the age-specific mortality rates in a given period (Anderson et al., NCHS, 2002). Life expectancy at birth is strongly influenced by infant and child mortality. On the average, life expectancy at birth for the United States was 76.9 years in 2000, which increased by 0.2 year from 1999 (Minino et al., NCHS, 2002). Despite no increase in life expectancy between 1998 and 1999, the general trend observed in U.S. life expectancy has been upward throughout the 20th century (Anderson et al., NCHS, 1999).

There are marked differences in life expectancy at birth by race and gender for the total population of the U.S., with females tending to live longer than males and Whites living longer than Black/African Americans/African Americans. For the U.S. in 2000, life expectancy for females was 79.5 years, while life expectancy for males was 74.1 years. Therefore females, on the average, lived 5.4 years longer than males. In 2000, life expectancy for Whites was 77.4 years compared with the life expectancy for Black/African Americans/African Americans which was 71.7 years, a difference of 5.7 years between the White and Black/African American populations.

Among the four major race-gender groups (Table 4), White females continued to have the highest life expectancy at birth (80.0 years), followed by Black/African American females (74.9 years), White males (74.8 years), and Black/African American males (68.2 years). Between 1999 and 2000, life expectancy increased 0.4 year for Black/African American males from 67.8 years in 1999 to 68.2 in 2000. Black/African American males experience annual increases in 1990-1992 and 1994-2000 (NCHS, 2002). Life expectancy for Black/African American females climbed from 74.7 years in 1999 to 74.9 years in 2000, an increase of 0.2 year. From 1999 to 2000, life expectancy for White males increased 0.2 year from 74.6 years to 74.8 years. White female life expectancy increased during the same period by 0.1 year from 79.9 years to 80.0 years. Overall, the largest gain in life expectancy between 1980 and 2000 were for Black/African American males (4.4 years).

As of this writing, the most current life tables published by the United States National Center for Health Statistics (NCHS) for the District of Columbia are for the average lifetime in years, 1989-1991. Therefore, from 1989-1991, the average three-year life expectancy at birth for the residents of the District of Columbia was 68.0 years, which was ranked 51 among the states. Nonetheless, the District of Columbia followed the general pattern of the United States: females tend to live longer than males and Whites live longer than Black/African Americans/African Americans. For the District, the average life expectancy for females was 74.2 years or 12.2 years longer than males whose life expectancy averaged 62.0 years from 1989-1991. There are also similar differences in life expectancy at birth by race. Whites (76.1 years), on the average, lived 11.7 years longer than Black/African Americans/African Americans (64.4 years).

Comparing the four race-gender groups, White females who lived in the District had the highest life expectancy at birth (81.6 years), followed by Black/African American females (71.6 years), White males (71.4 years), and Black/African American males (57.5 years). The longevity of each of these four groups mirrored the exact pattern of the nation. Although NCHS has not computed comparable life expectancy data for 1999 by states, it is interesting to note that during the 1989-1991 period, White female D.C. residents (81.1 years) tied ranking 3rd with other White females among the other states. For states with Black/African American population, both D.C. resident Black/African American males and females ranked last—they tend to die younger than the general U.S. population.

Table 4. Life Expectancy at Birth by Race, and Gender: United States, 2000 and District of Columbia, 1989-1991

	All Races			White			Black/African American		
	Total	Male	Female	Total	Male	Female	Total	Male	Female
US	76.7	73.9	79.4	77.3	74.6	79.9	71.4	67.8	74.7
DC	68.0	62.0	74.2	76.1	71.4	81.1	64.4	57.5	71.6

Source: Deaths: Final Data for 2000. National Vital Statistics Reports; vol 50 no 15. Hyattsville, Maryland: National Center for Health Statistics. 2002.

IV. Disparities in Health

Long before 1998 when President Clinton drew national attention to health disparities by announcing a federal mandate to eliminate them by 2010, health care providers, and medical researchers had described striking inequalities in health status, health outcomes, and access to care between minority population groups and the White majority. Inequalities in health care access have been documented not only for racial/ ethnic minorities and consumers of socioeconomic status, but also women compared to men seeking treatment for the same diagnosed condition (See "Unequal Treatment: Confronting Racial and Ethnic Disparities in Health Care by the Institute of Medicine, 2002 for a detailed discussion of this topic).

The causes of these disparities include differences in health-related behaviors, cultural factors, environmental and genetic risk factors, as well as inequities or discriminatory practices that limit the availability, accessibility, and affordability of health care services to populations at greatest risk of preventable disease and premature death.

In response to the growing recognition of health disparities, in 1998 the Health Resources and Services Administration (HRSA) launched the 100 Percent Access/Zero Disparities Campaign to support state and local initiatives aimed at reducing disparities in six critical areas: infant mortality, diabetes, heart disease, HIV/AIDS, adult and child immunizations, and cancer screening and management. In November of 2002, the federal Agency for Healthcare Research and Quality (AHRO) announced a new annual publication, The National Healthcare Disparities Report that is to be submitted to Congress and posted online.

The report will be on "prevailing disparities in health care delivery as they related to racial factors and socioeconomic factors in priority populations. AHRQ's stated aim is to ensure synergy with existing efforts, such as Healthy People 2010 and the DHHS priorities. The challenge of eliminating health disparities, lead the developers of the federal *Healthy People 2010 Plan*, released in 2000, to articulate two broad goals for national health care policy: to increase the quality of life and years of healthy life of people of all ages, and to eliminate disparities in health among different segments of the population. Developers set the same targets for the 2010 objectives for all five

population groups, instead of separate targets for each of the five populations as in the 2000 Plan.

Beginning in 1998, the DOH developed the District of Columbia Healthy People 2010 Plan, also released in 2000, which was modeled on the federal *Healthy People 2010 Plan* with the same overarching goals. The District 2010 Plan, however, is based on local data and provides measurable objectives grounded in baseline data in twenty-one focus areas (See the list on pages 1-2 of this chapter). For the measuring of progress at the local level in eliminating health disparities, according to selected 2010 focus area objectives, the SCHSA 2010 team is developing partnerships with local universities and CBOs to conduct community health assessments.

These community-wide health assessments will enable all resident population groups and subgroups to be included in minority health databases for surveillance purposes, as well as application by developers at the 2010 program level. These databases will be available for minority health research through the SCHSA at a proposed minority health data center. Similarly, the federal Office of Minority Health is proposing a partnership with Hunter College in New York City to apply GIS techniques to small area analysis in Region III (including the District of Columbia, MD, VA, WVA, Delaware) that will assist in the documentation of disparities in access for small groups of minorities in selected geographic areas of Region III.

The following sections give insight into the disparities in the health status of general and special populations of the District of Columbia. Most comparisons are made between African American and White residents, the two most populous racial groups in the District, who also account for the preponderance of disparities in health status and health care access, both nationally and locally.

V. HEALTH BEHAVIORS AND RISK FACTORS

Health behaviors and risk factors have a significant effect on health outcomes. For example, the timely completion of scheduled immunizations can prevent certain diseases. A behavior like cigarette smoking increases the risk of lung cancer, heart disease, emphysema, and other respiratory diseases. Overweight and obesity increase the risk of a developing a variety of diseases, as well as their severity. Regular physical activity decreases the risk of premature death from chronic disease and enhances physical functioning. Heavy and chronic use of alcohol and illicit drugs increase the risk of disease and injuries.

This section reviews available information on the following health risk factors and behaviors with special relevance to the District of Columbia Healthy People 2010 Plan:

1. Immunization

2. Nutrition
3. Overweight and Obesity
4. Physical Activity
5. Responsible sexual behavior
6. Substance abuse
7. Tobacco use
8. Violent Behavior

Each of these health indicators, or risk factors, is directly related to one or more causes of preventable illness and premature mortality. As such, the risk factors measured by the indicators tend to be disproportionately present among low-income and minority populations, including those residing in the District of Columbia. The Healthy People 2010 Objectives provide the baseline measures against which the success of the health promotion and disease prevention initiatives of the Department of Health from 2002 through 2007 can be evaluated.

Immunization

(Immunization and Infectious Diseases: DC Healthy People 2010 Chapter 17, federal *Healthy People 2010* Chapter 14)

Full immunization coverage requires that children 19 to 35 months old receive 90 percent or more of the recommended vaccines for their age group. In 1998, 73 percent of children ages 19 to 35 months in the United States received all vaccines recommended for universal administration, while the coverage for DC children in 1997 was 76 percent. Coverage rates for District children in 1997 for 4+ DTP, 3+ polio and 3 hepatitis B were 80, 89, and 80 percent respectively. The figure for varicella in 1999 was 69 percent (District of Columbia Healthy People 2010 Plan, 2000). Immunization coverage for children in Head Start and Prekindergarten levels was 95 percent in 1997. Coverage for children in Kindergarten, first and fifth grades for each antigen excluding hepatitis and varicella was 95 percent in 1997. DC *Healthy People 2010* target a 98 percent immunization levels for this last category, including hepatitis and varicella.

The national rate in 1998 for immunization of adults 65 years and older for influenza was 64 percent—almost double the 1989 immunization rate of 33 percent. However, only 46 percent of persons aged 65 years and older ever received a pneumococcal vaccine. Limited data on Pneumococcal vaccination were available for District's residents. Baseline data for 1994 from the National Health Interview Survey showed that the influenza vaccination rate for African Americans age 65 and older was 16.9 percent, and 36.3 percent for Whites (District of Columbia Healthy People 2010 Plan, 2000)—well below the national figure of 64 percent. These diseases accounted for 3.8 percent of deaths in the District in 1998.

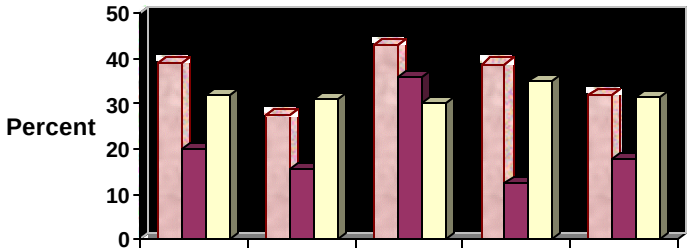
Nutrition

(Nutrition and Overweight: DC Healthy People 2010 Chapter 1; *Healthy People 2010* Chapter 19)

A good diet has been proven to reduce the risk of cardiovascular diseases and the prevalence of overweight and obesity. Disorders like cancers of the digestive system are related to unhealthy eating habits like the consumption of saturated fats and cholesterol. The Centers for Disease Control and the National Institute of Cancer recommend the consumption of 5 fruits and vegetables a day.

The Behavioral Risk Factor Surveillance Survey (BRFSS) of 2000 indicates that 68.1 percent of District residents do not eat enough fruits and vegetables, while an average of 76.8 percent of people nationwide do not eat enough of them. Figure 2 shows the percent of adults eating five or more servings of fruits and vegetables a day by race for the 1996, 1998 and 2000 BRFSS.

Figure 2. Adults Eating Five or More Servings of Fruits and Vegetables a Day by Race (Adults 18 Years and Older) 1996, 1998, 2000



	White	Black	Hispanic	Others*	Total
1996	39.2	27.3	43	38.8	32.1
1998	19.8	15.4	35.7	12.3	17.8
2000	32.1	31.1	30	35	31.5

Race

* Caution in interpreting data with denominator less than 50
Source: District of Columbia Department of Health, Bureau of Epidemiology and Health Risk Assessment, BRFSS Survey

Overweight and Obesity

(Federal *Healthy People 2010* Chapter 19.)

Overweight is defined as a Body Mass Index (BMI) measure of 25.0 to 29.9, whereas **obesity** is defined as a BMI greater than or equal to 30.0. According to the Centers for Disease Control overweight in the District was less prevalent than in the nation as a whole, with 31.7 percent versus 36.8 percent nationwide. The District of Columbia BRFSS shows that in the period of 1997 to 2001 overweight was more prevalent among

males (39.2 percent) than females (27 percent). In the United States, obesity has risen at an epidemic rate during the past 20 years. As indicated by the Centers for Disease Control, the prevalence nationwide in 2000 was smaller at 20.1 percent than the prevalence of obesity in DC at 21.5 percent. During the period of 1997-2001 the obesity percent was higher in females (22.1 percent) than in males (15.4 percent).

Physical Activity
(Federal *Healthy People 2010* Chapter 22)

Being overweight and physically inactive contributes to the poor health status of District residents in innumerable ways. They significantly raise the risk of morbidity and mortality from the most common causes of death nationally and in the District: heart disease, certain types of cancers and stroke, and Type-2 diabetes. They also are implicated in a number of other risk factors and debilitating conditions, including high blood pressure, high cholesterol, gallbladder disease, arthritis, sleep disturbances, and breathing problems. Conversely, regular physical activity is associated with lower adult mortality rates for adults of any age; even when only moderate levels of physical activity are performed.

Physical inactivity is prevalent in the District. In 2000, 20.8 percent of residents reported "no physical activity" on the BRFSS. This figure showed a substantial decrease in physical inactivity from 1998, when 38.5 percent reported no physical activity. By way of comparison, the median for the nation was 26.9 percent in 2000 and 27.7 percent in 1998. In the 2000 District of Columbia BRFSS, females showed to be more physically inactive than males; 23.6 and 17.5 percent respectively.

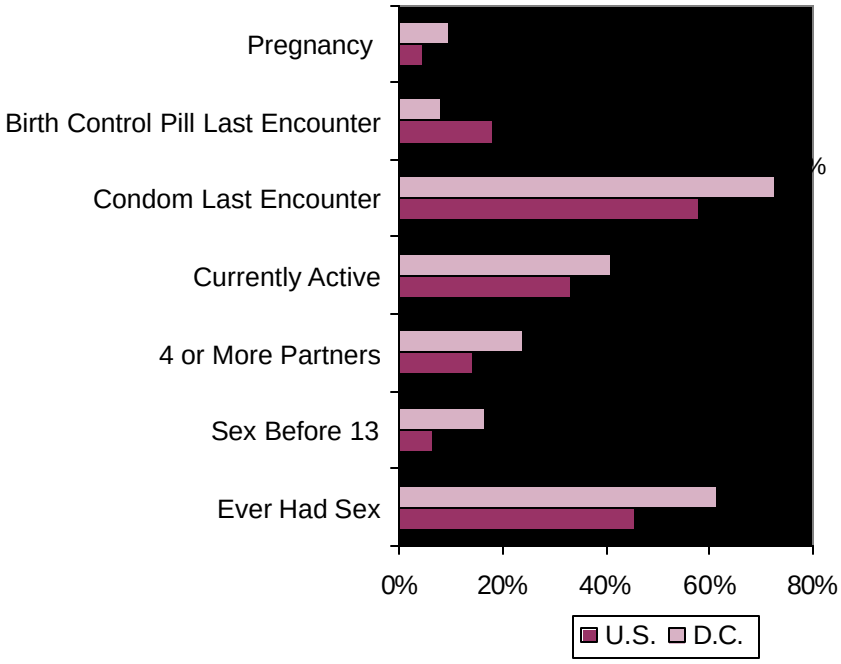
Responsible Sexual Behavior
(DC Healthy People 2010 Chapter 9, Objectives 9-20-9-25; *Healthy People 2010* Chapter 9)

Adolescents in the District are more likely than teens nationally to have ever had sex, to initiate sex before age 13, to have had four or more partners, and to be currently active. (Figure 3). Although they are more likely to use condoms, D.C. teens also are more likely to have gotten pregnant or made someone pregnant.

The high prevalence of condom use during the last sexual encounter attests to the success of sex education and HIV prevention efforts in D.C. However, it is clear that responsible sexual behavior must be increased in the District of Columbia, if the high rates of disease and death from STDs and HIV/AIDS are to be reduced. Incidence and prevalence data of STD's and HIV/AIDS in the District of Columbia can be found in Section VII B; Morbidity and Communicable Diseases

(See DC Healthy People 2010 Chapter 19 on Sexually Transmitted Diseases and Chapter 16 on HIV/AIDS; *Healthy People 2010* Chapters 25 and 13, respectively)

Figure 3. Sexual Activity Among Teens in D.C. and the United States, 2001



Source: Youth Behavioral Risk Factor Survey- United States and District of Columbia, 2001.

Substance Abuse

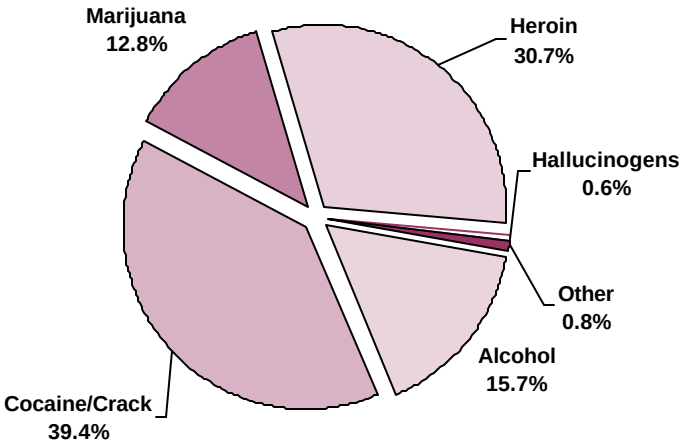
(DC Healthy People 2010 Chapter 20; *Healthy People 2010* Chapter 26)

In 1997 the District of Columbia Youth Behavioral Risk Factor Survey (YRBFS) reported that 68.7 percent of boys and 67.6 percent of girls have tried smoking. Also, 71 percent of the surveyed youth reported drinking alcohol, 52 percent using marihuana, and 25 percent reported obtaining an illegal drug on school property.

According to a door-to-door survey conducted by the DOH Addiction Prevention and Recovery Administration (APRA) in December 2000, 10.5 percent of the District's population is addicted to illegal drugs or alcohol. The household survey found that marijuana was the most commonly used illegal substance in the District and that 7 percent of residents 12 years of age or older had used it in the past month. Among youth ages 17 to 23, one in six had reported having had an alcoholic drink in the past month and nearly 29,000 residents have an addiction to alcohol.

Figure 4 shows the primary drug of the 2,764 clients admitted to programs funded by APRA in 1998. This data for 1998 indicates that substance abuse was predominantly a male and African American phenomenon, with males accounting for 69.8 percent of admissions and Blacks/African Americans accounting for 95.4 percent of admissions (DOH, 1998). Wards 5, 6, 7, and 8, which contain approximately half the city's population, accounted for 69.1 percent of admissions.

Figure 4. Primary Drug of Patients Admitted to APRA-Funded Treatment Centers, 1998



Source: Survey of Substance Abuse in the District of Columbia. D.C. Department of Health, Addiction Prevention and Recovery Administration, December 1998.

The majority of users reported using more than one drug. The most common route of administration was smoking (n=1109 mentions), followed by injection (451), oral administration (413), and inhalation (291). The age of first use in the District begins at 12 to 15 years, peaks between 16 and 34 years, and declines after 34 years.

Tobacco Use

(DC Healthy People 2010 Chapter 2; *Healthy People 2010* Chapter 27)

Smoking is the single most preventable cause of disease and death in the United States, causing about 430,000 deaths per year from lung and other cancers, emphysema, and other respiratory and heart disease. This represents more than 5 million years of potential life lost. Direct medical costs attributable to smoking total at least $50 billion per year (National Center for Chronic Disease Prevention and Health Promotion, 1999).

Tobacco use is one of the few correlations in health status where the District of Columbia scores more favorably than the nation as a whole. According to the 1998 BRFSS, 19.2 percent of District residents are smokers (i.e., have consumed more than 100 cigarettes in their lifetimes and now smoke all or some days), with Hispanics being the most likely to smoke (28.4 percent, according to the 1997 BRFSS). There are 24 percent of boys and 21.3 percent of girls in grades 9 to 12 report that they are current smokers, and 68.7 percent of boy and 67.6 percent of girls had tried cigarettes (District of Columbia YRBFS).

Violent Behaviors
(DC Healthy People 2010 Chapter 4; *Healthy People 2010* Chapter 15)

Violence is considered to be a leading public health problem resulting in significant mortality and morbidity. Child abuse, sexual abuse and spouse abuse threaten many American families. Children raised in an abusive environment are prone to continue the cycle. Nationwide statistics indicate that men, teens, young adults and minority group members, particularly Blacks/African Americans and Hispanics, are the sub-populations most likely to be victims. Homicides are most often committed with a firearm, and occur mainly among individuals who know each other. The firearm-related death in the District in 1997 was 70 per100, 000 people (District of Columbia Healthy People 2010 Plan, 2000).

For the year 1997, homicide and accidents were the major killers of youths, ages 15 to 24, which account for 80.8 and 7.0 percent respectively (Indices, District of Columbia Handbook, 1997-1998). The 199- Homicide rate in the District of Columbia was 45.2 per 100,000 people. In 1998 there were 218 homicides in the District of Columbia with Black/African American males accounting for 181 and Black/African American females accounting for 28. Suicide rates in the District were 6.36 per 100,000 in 1997, and 29 suicides occurred in the District in 1998 with 24 accounting for males and 5 for females. There were also 41.0 rapes or attempted rapes per 100,000 of females aged 12 and older in 1997 (District of Columbia Healthy People 2010 Plan, 2000). Data from the Metropolitan Police Department show that in 1997 there were 447 alcohol related motor vehicle accidents.

In 1997 there were 887 families reported to Child and Family Services Division, involving 1,501 children, and with 240 abuse reports substantiated. In the same year there were 3,720 families reported for neglect involving 9,894 children and 1,750 of them were substantiated (Indices, District of Columbia Handbook, 1997-1998).

According to the District of Columbia YBRFS data from 2001 District's school children were engaged in a physical fight (37.4 percent), attempted suicide (10.3 percent), and were forced to have sexual intercourse (12.6 percent). They also reported to rarely or never wearing seatbelt when somebody else was driving (14.1 percent) and rarely or never wearing a helmet when driving a motorcycle or bicycle (34.4 and 85.5 percent respectively).

VI. NATALITY

Births and Birth Rates

From 1981-1990 in the District of Columbia there was an increase in the number of births and birth rates to District residents, following a decline in the 1970s. Beginning in 1991, the number of births to District residents declined through 1999 and increased again for

the first time in 2000. In 2000, there were 7,666 births to District of Columbia residents, 3,984 (34.2 percent) fewer births than the 11,650 in 1991 (Table 5). The birth rate in 1991 was 19.6 per 1,000 population compared to 13.4 in 2000. Table 5 presents a ten-year summary of births, race/ethnicity, marital status and age.

Table 5. Ten-Year Birth Trends: District of Columbia, 1991-2000

Year	Births	Black	Percent	White	Percent	Hispanic*	Percent	Unmarried	Percent	<20yrs	Percent
1991	11,650	9,128	78.4	1,519	13.0	953	8.2	7,793	66.9	2,008	17.2
1992	10,939	8,510	77.8	1,442	13.2	920	8.4	7,370	67.4	1,772	16.2
1993	10,614	8,159	76.9	1,478	13.9	904	8.5	7,743	73.0	1,782	16.8
1994	9,911	7,629	77.0	1,354	13.7	888	9.0	6,827	68.9	1,550	15.6
1995	8,993	6,681	74.3	1,422	15.8	715	8.0	5,937	66.0	1,392	15.5
1996	8,377	6,048	72.2	1,309	15.6	853	10.2	5,545	66.2	1,406	16.8
1997	7,916	5,696	72.0	1,300	16.4	646	8.2	5,042	63.7	1,233	15.6
1998	7,678	5,381	70.1	1,392	18.1	762	9.9	4,829	62.9	1,172	15.3
1999	7,513	5,081	67.6	1,467	19.5	842	11.2	4,641	61.8	1,113	15.0
2000	7,666	5,039	65.7	1,543	20.1	1,006	13.1	4,623	60.3	1,086	14.2

*Persons of Hispanic/Latino origin may be of any race. Therefore, each race category contains persons of both Hispanic and non-Hispanic origin.
Source: State Center for Health Statistics Administration, Department of Health, Government of the District of Columbia.

Births to Black/African American women who were D.C. residents have been declining from 9,128 (78.4 percent) in 1991 to 5,039 in 2000 (65.7 percent). The number of births to White women decreased 1991-1994 and increased from 1995-2000 (Table 5). In 1991, there were 953 births to Hispanic/Latina women compared with 1,006 in 2000. Although the number of births to women of Hispanic origin has fluctuated during this ten-year period, there was an overall increase of 5.6 percent.

In 1991, births to young women under 20 years of age numbered 2,008 (17.2 percent) of all births compared with 14.2 percent in 2000. Table 5 shows that during this ten-year period, the number of births to women younger than age 20 years has been steadily declining except for 1996, with a recorded increase of 14 births.

Births to unmarried mothers, in general, accounted for about two-thirds of all births to District residents, increasing from 66.9 percent in 1991 to 73.0 percent in 1993 and decreasing to 60.3 percent in 2000.

Ward level data for births by maternal and child health indicators associated with infant mortality is summarized in Table 14.

Fertility

Another indicator of change in childbearing trends is the fertility rate. The general fertility rate is calculated as the number of live births per 1,000 women of childbearing ages 15-44 years. Changes in age-specific birth rates and the number of women of

childbearing age within an age-specific population have an effect on the projected number of live births during a given time period.

The District's fertility rate was 62.3 in 1996 and 53.3 in 2000. In the District the overall fertility rate and birth rates (age-specific fertility rates) for adolescents, teens, and women 20-29 years have continued to decline, while birth rates for women 30-44 years of age increased in 2000. However, the U.S. birth rates for teens continued to decline, while birth rates for women 20-44 years of age increased in 2000. For the United States, the overall fertility rate increased for the third year in 2000 after declining each year during 1990-1997 (Health, United States, 2002).

The birth rate for teenagers declined for the seventh consecutive year in 2000 to 53.2 births per 1,000 women aged 15-19 years, an all-time low for the District. The birth rate for teenagers living in the United States declined for the ninth consecutive year in 2000, to 48.7 births per women aged 15-19 years, also an all-time low (NCHS, Ventura et al, 2001). Between 1997 and 2000, the District teen birth rate declined more for 18-19 year olds (53.4 percent) than for 15-17 year olds (26.7 percent). The reverse decrease in the U.S. teen rates was reported: teen birth rate decreased more for 15-17 year olds than for 18-19 year olds (NCHS, Ventura, 2001; Health, United States, 2002).

Pregnancy and Pregnancy Rates

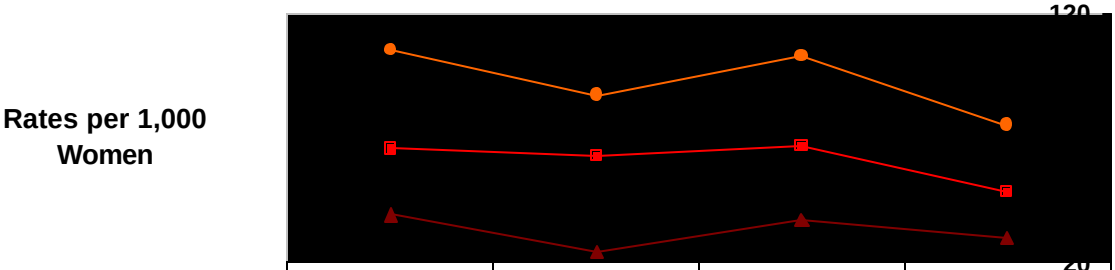
A pregnancy can have one of three outcomes: a live birth, a legally induced abortion, or a fetal death. Thus, the number of pregnancies is the sum of live births, legally induced abortions, and fetal deaths. Abortion reporting is voluntary in the District of Columbia. The Department of Health does not receive reports on abortions performed in private physicians' office. Reported pregnancies decreased 28 percent and pregnancy rates decreased 33 percent between 1996 and 2000. Pregnancy rates decreased each year during the five-year period except for 1999, which increased 3.7 percent from 1998. The 10,970 pregnancies reported to the Department of Health in 2000 were less than one percent fewer than the 10,982 pregnancies reported in 1999. The pregnancy rate decreased 12.9 percent between 1999 and 2000, going from 87.6 pregnancies per 1,000 women aged 15-44 years in 1999 to 76.3 in 2000. Pregnancy rates decreased between 1999 and 2000 in each age group of women except for women 30-34, 35-39, and 40 years of age and older. The pregnancy rate of 35-39 year old women increased 8.2 percent, but the largest increase was for women 40 years of age and older (21.1 percent) between 1999 and 2000.

The **teenage pregnancy rate** for 2000 was 81.4 pregnancies per 1,000 women aged 15-19 years, a little more than one and one-half times the birth rate in that year (53.2). The teenage pregnancy rate decreased 39.4 percent from 1999 to 2000. This decrease also indicates the decrease in the overall number of live births and abortions among teenagers. At the same time, however, the number of fetal deaths increased among teenagers 15-19

years. The pregnancy rates for teenagers aged 15-17 years and 18-19 years were 75.3 per 1,000 women aged 15-17 years (27.2 percent decrease between 1999 and 2000) and 86.0 per 1,000 women aged 18-19 years (48.3 percent decrease between 1999 and 2000), respectively (Figures 5 and 6).

(See DC Healthy People 2010 Chapter 9 on Maternal, Infant, and Child Health, 9-7; *Healthy People 2010* Chapter 9 on Family Planning, 9-7)

Figure 5. Pregnancy, Birth and Abortion Rates for Teenagers 15-17 Years: District of Columbia, 1997-2000

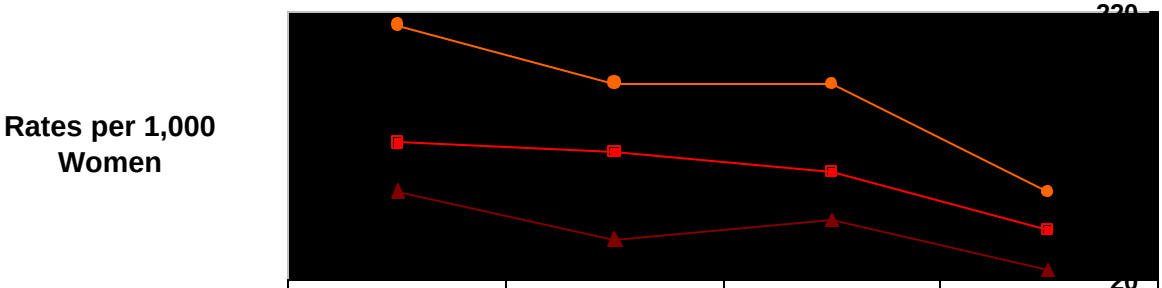


	1997	1998	1999	2000
Pregnancy Rate	105.6	87.4	103.4	75.3
Birth Rate	65.8	62.7	67	48.2
Abortion Rate	39.3	24.4	37	30.1

Years

Note: 2000 US Birth Rate = 27.4
Source: State Center for Health Statistics Administration

Figure 6. Pregnancy, Birth and Abortion Rates for Teenagers 18-19 Years: District of Columbia, 1997-2000



	1997	1998	1999	2000
Pregnancy Rate	210.3	166.8	166.3	86
Birth Rate	122.4	116.1	100.5	57
Abortion Rate	86.4	50.6	65	28.3

Years

Source: State Center for Health Statistics Administration
Note: 2000 US Birth Rate= 79.2

In 2000, 69.5 percent of reported pregnancies of women were Black/African American, 17.2 were White, 11.2 percent were other races, and 11.4 percent were Hispanic/Latino. Persons of Hispanic origin may be of any race and are, therefore, included in all racial categories (i.e., Black/African American, White, and other races).

VII. MORBIDITY

This section provides a three-year, statistical profile of the major chronic and communicable diseases affecting residents in the District. More detailed discussion on health promotion and prevention activities associated with these diseased conditions will follow in other chapters of the plan. Generally, morbidity data are not easily obtained and certain categories are omitted in deference to mortality data, which are much more available and accurate. In some instances estimates are provided.

Morbidity describes the extent to which illness, disease, and disabling conditions affect the lives of our people. These conditions tend to limit activity of residents thereby reducing their quality of life. Efforts to improve the health and well being of District residents are more likely to be effective when we know more about the prevalence, incidence and causes of such disease conditions. While morbidity data typically focuses on communicable and other preventable diseases, the provision of comprehensive health care and interventions requires knowledge of other causes of illness and death.

Chronic Diseases (non-communicable)

Among the leading causes of protracted illness and quite often death in the District, are cardiovascular diseases (heart disease and stroke), cancer, chronic obstructive pulmonary disease (COPD), diabetes and arthritis. These chronic diseases primarily affect older residents while other conditions like asthma, injury and disability, afflict both young and old. Table 7 provides prevalence rates for the leading impact morbidities in the non-communicable category for the District of Columbia. None of the figures indicate a downward trend in the three years for which data are provided. In fact, the rates for stroke, cancer, and diabetes have constantly increased over the three-year period, even though not dramatically. This indicates that these health conditions are persistent, which may be explained by the increasing numbers of elderly persons in the overall population. These chronic diseases are either major killers or significant causes of long-term suffering and unless the increasing trends are reversed there is little impact to be made on the District death rates. The presence and persistence of most chronic diseases in residents can be tied to their lack of physical activity or poor nutrition. Genetic factors are also believed to play a significant role. Obesity is a clear marker for physical inactivity and poor nutritional habits and is directly tied to Type-2 diabetes.

Table 7. Prevalence of Chronic Diseases in the District of Columbia, 1998, 1999, and 2000 (Rates are per 100,000 population)

Chronic Diseases (Rates)	**1998**		**1999**		**2000**	
	DC	**US**	**DC**	**US**	**DC**	**US**
Cardiovascular Disease Heart Disease[a] Stroke[b]	3.0 2.2	NA NA	2.3 2.4	NA NA	3.5 2.7	
Cancer[f] (rates per 100,000 population)	532.0		540.7		542.8	
Diabetes[d]	6.0 %	3.9 %	6.9 %	4.08 %	6.9 %	5.9%
Obesity[e]	20.2 %	18.3 %	18.5 %	19.7 %	21.5	20.1%
Asthma[f]	NA	NA	NA	NA	8.0%	7.2%
Number of Cases						
Chronic Diseases	**1998**		**1999**		**2000**	
	DC	**US**	**DC**	**US**	**DC**	**US**
Cardiovascular						

Disease						
Heart Disease[a]	15,693	NA	11,937	NA	20,022	60.8M 12.4M
Stroke[b]	11,509	NA	12,456	NA	15,446	4.4M
Cancer	2,783	1,228,600	2,806	1,221,800	3,105	1,220,000
Diabetes[d]	31,387	10,541,661	35,811	11,125,785	35,920	15,500,000
Obesity[e]	25	10.5 M	29	11.1M	28	
Asthma[f]	NA	NA	NA	NA	1,705	181,194

[e] Centers for Disease Control

Communicable Diseases

The leading communicable or infectious diseases in the District of Columbia are: HIV/AIDS, STDs, hepatitis, pneumonia, bronchitis and influenza, and tuberculosis (TB). Table 9 indicates that apart from hepatitis B, the leading communicable diseases in the District of Columbia are on a downward trend. This is consistent with the comparative figures provided for the country as a whole. However, the District rates remain consistently higher than the national rates.

The rate for HIV/AIDS declined by 9.9 percent between 1998 and 2000, while the national rate declined by 16 percent. The difference in the incidence rates between the District and the United States as a whole is largely explained by disproportionate burden of the disease carried by minorities--primarily Blacks/African Americans account for about 50 percent of new cases reported in the United States while only accounting for about 13 percent of the population. In the District, Blacks/African Americans account for about 75 percent and Whites about 21 percent of the approximately 1,000 new HIV/AIDS cases that are reported every year. The fact that the rate of decline is less for the District, points to the need for more focused and effective efforts in health promotion and prevention, the topic of another chapter in the plan. The District's Healthy People 2010 (HP2010) objective is to lower the incidence rate of diagnosed AIDS cases among residents from a 1998 baseline of 143 cases per 100,000 to no more than 90 per 100,000.

District prevalence rates for hepatitis A declined by 44.5 percent between 1998 and 2000 compared to 44.1 percent for the United States as a whole. This is a very noteworthy achievement even though the District rate in 2000 was 31 percent higher than the rate for the U.S. This good news is somewhat dampened by the fact that the prevalence rate as reported in the District for hepatitis B increased by 79 percent from 3.4 per 100,000 in 1998 to 6.1 per 100,000 in 2000, while the U.S. rate declined by 23.7 percent from 3.8 per 100,000 in 1998 to 2.9 per 100,000 in 2000.

More and more studies are linking sexually transmitted diseases (STDs) with HIV/AIDS. While the behavioral risk patterns are the same there is more evidence to suggest direct linkages. Ulcerative STDs, such as chancroid, syphilis, and genital herpes, as well as inflammatory STDs, such as gonorrhea, chlamydia, and trichomoniasis, have been shown

to increase the risk of HIV infection (Eng and Butler, 1997). Therefore, efforts to reduce the incidence and spread of STDs is likely to prevent HIV infection and AIDS.

The incidence rate for syphilis as shown in Table 8, declined by 58 percent from 15.5 per 100,000 in 1998 to 6.5 per 100,000 in 2000. This compared to a 15.4 percent decline for the US of 2.6 per 100,000 in 1998 to 2.2 per 100,000 in 2000. Chlamydia rates declined by 7.8 percent from 608.3 per 100,000 in 1998 to 560.3 per 100,000 in 2000. The US rates for chlamydia increased by 9.9 percent from 234.2 per 100,000 in 1998 to 257.5 in 2000. Despite the decline in chlamydia rates in the District, the local rate was 54 percent higher than the national rate in 2000. The District rate for gonorrhea declined markedly (45.1 percent) from 861.7 per 100,000 in 1998 to 473.0 per 100,000 in 2000. By comparison, the national rate for gonorrhea remained constant in the period at 131.6 per 100,000. The District's HP2010 goals for STDs are shown in Table 8.

Table 8. Healthy People 2010 Objectives for Selected STDs in the District of Columbia

STD Category	HP2010 Baseline (1997)	HP2010 Objective
Syphilis (primary and secondary)	133 cases per 100,000	10 cases per 100,000
Chlamydia	No baseline established	No more than 3 percent
Gonorrhea	823 cases per 100,000	150 cases per 100,000

Source: Government of the District of Columbia, Healthy People 2010 Plan: A Strategy for Better Health, 2000.

Tuberculosis (TB) is a disease caused by an organism called *Mycobacterium tuberculosis.* Tuberculosis was once the leading cause of death in the United States. In the 1940s, scientists discovered the first of several drugs now used to treat TB. As a result, TB slowly began to disappear in the United States. But TB has come back. Between 1985 and 1992, the number of TB cases increased. However, with increased funding and attention to the TB problem, we have had a steady decline in the number of persons with TB. But TB is still a problem; more than 16,000 cases were reported in 2000 in the United States.

In the District, the 85 new cases of tuberculosis in 2000 indicate a case rate of 14.9 per 100,000 residents. The incidence rate declined by 27.3 percent from 1998 to 2000 compared to a 14.7 percent decline in TB rates for the country as a whole. The District TB rate, however, was 61 percent higher than the national average. While the overall rates are declining, the percent of cases occurring in foreign-born persons has increased over the last five years to approximately 30 percent in 1999 and 2000 and 34 percent in 2001. Multi-drug resistant cases, an indicator of the program's effectiveness in obtaining patient adherence to treatment, have remained low at two percent according to recent studies by the Centers for Disease Control (CDC).

The decline in the District from 20.5 cases per 100,000 to 13.5 cases per 100,000 population has improved the 1999 Centers for Disease Control's ranking of the District's TB control efforts to second in the nation.

Table 9. Leading Communicable Diseases in the District of Columbia, 1998, 1999, and 2000 (Rates are per 100,000 population)

Communicable Diseases	1998		1999		2000	
Case Rates	DC	US	DC	US	DC	US
HIV/AIDS[a]	169.7	17.4	161.5	16.7	152.9	14.6
Hepatitis A[b]	12.6	8.6	10.3	6.3	6.99	4.8
Hepatitis B[b]	3.4	3.8	4.4	2.8	6.1	2.9
Hepatitis C[b]	NA	2.5	7.34	2.3	251.0	2.0
Syphilis[c]	15.5	2.6	8.7	2.4	6.5	2.2
Chlamydia[c]	608.3	234.2	524.1	251.6	560.3	257.5
Gonorrhea[c]	861.7	131.6	681.3	132.0	473.0	131.6
Tuberculosis[f]	20.5	6.8	13.5	6.4	14.9	5.8
Number of Cases						
Communicable Diseases	**1998**		**1999**		**2000**	
Number of Cases	**DC**	**US**	**DC**	**US**	**DC**	**US**
HIV/AIDS[a]	989	47,915	838	46,400	873	41,795
Hepatitis A[b]	66	23,299	59	17,047	40	13,397
Hepatitis B[b]	18	10,258	25	7,694	35	8,036
Hepatitis C[b]	Na	6,800	42	6,400	1436	5,700
Syphilis[c]	81	7,035	45	6,617	37	5,979
Chlamydia[c]	3,182	607,752	2,720	659,108	3,205	702,093
Gonorrhea[c]	4,508	355,728	3,536	359,931	2,706	358,995
Tuberculosis[f]	107	18.361	70	17,531	89	16,377

Sources:
[a,c]Centers for Disease Control, National Center for HIV, STD and TB Prevention, Division of Sexually Transmitted Diseases: National Surveillance Reports: Cases reported to CDC by State Health Departments
[b]Centers for Disease Control, National Center for Infectious Diseases, Viral Hepatitis Surveillance Reports
[d,e]American Lung Association, Morbidity and Mortality: Pneumonia, Influenza and Acute Respiratory Conditions 2002: Number of First-Listed Hospital Discharges and Rates per 10,000 Population. URL: http://www.lungusa.org/data/
[f]American Lung Association, State-by-State Lung Disease Trend Reports. URL: http://www.lungusa.org/data/

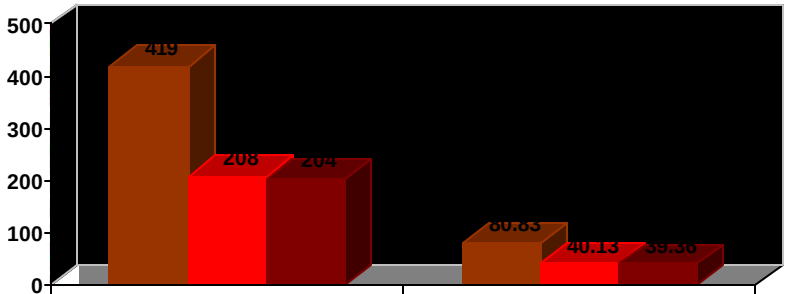
Injury and Violence

(DC Healthy People 2010 Chapter 4, Objectives 4-1 through 4-5; *Healthy People 2010* Chapter 15 Objectives 15-3, 15-32, 15-33, 15-34, 15-38, 15-39)

Injury can be classified into two categories: unintentional and intentional. Unintentional injuries include home and recreation related injuries-such as fires and drowning- and motor vehicle-related injuries. Nationally, motor vehicle crashes are the most common cause of serious injuries, which often result in death. Many of these motor vehicle crashes involve motor vehicle occupants, motorcyclists, bicyclists, and pedestrians. The

federal *Healthy People 2010* reported that the total annual cost to society due to motor vehicle crashes exceeds $150 billion. Intentional injuries, on the other hand, include firearm-related deaths, homicides, suicides, rape and attempted rape, and maltreated children. In the District of Columbia for intentional injuries, homicide continues to be the leading cause of death for young persons aged 15 to 24 years as a whole and the leading cause of death for Blacks/African Americans. Unintentional accidents are the second leading cause of death for the same age range. Unintentional injuries are also a leading cause of disability, which carries additional burdens to society in terms of lost work productivity and high costs of medical care and rehabilitation.

Figure 7: District of Columbia Injury Related Deaths and Death Rates Per 100,000 Population for All Races, All Ages and Both Sexes, Year 2000



	Number of Deaths	Crude Rate
All Injuries	419	80.83
Violence Related	208	40.13
Unintentional Injuries	204	39.36

Source: Centers For Disease Control And Prevention

Disability

(DC Healthy People 2010 Chapter 14, Objectives 14-1 through 14-5; *Healthy People 2010* Chapter 6, Objectives 6-1, 6-3, 6-4, 6-5, 6-6, 6-8 through 6-12)

Disability is defined as a limitation of an individual's ability to perform major life activities and/or those responsibilities associated with the normally accepted social roles such as school attendance, employment and family duties. These activity limitations are associated with a reduction of loss of the body's ability to perform normal functions, particularly those related to the sense organs or the musculoskeletal system, which result from congenital or traumatic impairments or other chronic conditions. Impairments include reduced a total loss of vision, hearing or speech, paralysis, and deformities. Other chronic conditions include circulatory, respiratory, digestive, skin and musculoskeletal conditions, and diabetes. According to *DC Healthy People 2010*, there are approximately 86,000 persons with disabilities.

VIII. MORTALITY

This section presents information on mortality from the District of Columbia vital records system. Data are presented on total number of deaths, leading causes of death (Figure 8 and Table 9), premature mortality, including infant mortality, child and youth mortality, and maternal mortality and the elderly by age, gender (Table 10), race, ethnicity, and Ward (Table 11).

In 2000, there were 5,945 deaths to residents of the District of Columbia. This represented a crude death rate of 1,039.2 per 100,000 population and an age-adjusted rate of 1,053.6 per 100,000 population. The age-adjusted death rate eliminates the effects of the aging of the population per 100,000 U.S. standard population. The District's crude and age-adjusted death rates are higher than the national rate but declining since 1994. The crude death rate for the United States in 2000 was 873.1 per 100,000 population and the age-adjusted death rate was 872.0 per 100,000 population. The 2000 crude rate for males (1,107.8 per 100,000) was considerably higher than for females (978.2 per 100,000), and the 2000 rate for Blacks/African Americans (1,353.3 per 100,000) was significantly higher than for Whites (688.2 per 100,000) (Table 9).

Table 9. Death Rate* for All Causes by Race and Sex; District of Columbia Residents, 2000

Categories	All Races		White		Black		Other	
	Number	Rate*	Number	Rate*	Number	Rate*	Number	Rate*
Both Sexes	5,945	1,039.2	1,112	688.2	4,646	1,353.3	87	165.3
Males	2,984	1,107.8	596	655.9	2,334	1,500.5	54	207.7
Females	2,961	978.2	616	697.7	2,312	1,231.3	33	123.9

*Crude Rate per 100,000 population.
Source: DC Department of Health, State Center for Health Statistics, 2002.

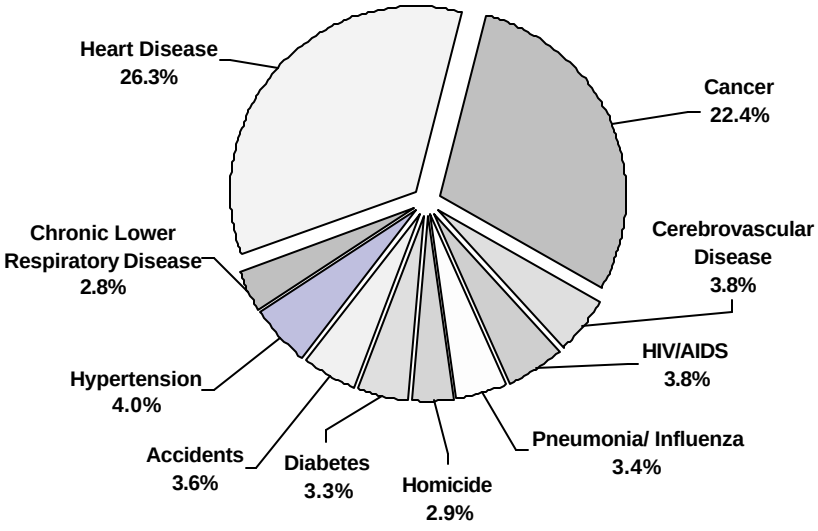
The ten leading causes of death in the District of Columbia in 2000 ranked in order were heart disease, cancer, essential (primary) hypertension and hypertensive renal disease (new ICD-10) (hypertension), cerebrovascular disease (stroke), HIV/AIDS, accidents, influenza and pneumonia, diabetes, assault (new ICD-10) (homicide), and chronic lower respiratory disease (Figure 8 and Table 11). These ten causes accounted for 76.3 percent of all District resident deaths in 2000.

Leading Causes of Death

In the twentieth century, chronic diseases, including heart disease, stroke, cancer, and diabetes have replaced infectious disease as the leading causes of death and disability in industrial countries. Heart disease and cancer are two leading causes of premature death among District residents as well as Americans aged 45 to 64 years. Nationally, Blacks/African Americans are at greater risk of mortality from these chronic diseases than any other group in this age range. The differences in the death rates from chronic disease account for most if the disparity in the chance of survival to age 65 between Blacks/African Americans and Whites (Council of Economic Advisors, 1998). However, in this section, the first five leading causes of death and diabetes will be discussed. These five leading causes and diabetes account for 63.5 percent of all deaths to District residents in 2000.

The leading causes of deaths for Black/African American, White, Asian alone, and Hispanic residents in 2000 were heart disease and cancer.

Figure 8. 10 Leading Causes of Death in the District of Columbia, 2000



Source: D.C. Department of Health: State Center for Health Statistics Administration, 2002

The following section provides more detailed information on the five leading causes of death and diabetes (Tables 10 and 11).

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Table 10. Five Leading Causes of Death by Gender: District of Columbia Residents, 2000

Cause of Death	Total		Male		Female	
	Number	Rate*	Number	Rate*	Number	Rate*
All Causes	5,945	1,039.2	2,984	1,107.8	2,961	978.2
1. Heart Disease	1,566	273.7	697	258.8	869	287.1
2. Cancer	1,329	232.3	685	254.3	644	212.8
3. Hypertension	236	41.3	124	46.0	112	37.0
4. Cerebrovascular Disease (Stroke)	226	39.5	92	34.2	134	44.3
5. HIV/AIDS	225	39.3	162	60.1	63	20.8

*Rates are per 100,000 population.
Source: DC Department of Health, State Center for Health Statistics, 2002

Table 11. Number and Rate* of Five Leading Causes of Death and Diabetes by Ward; District of Columbia Residents, 2000

Cause	Total	Ward 1	Ward 2	Ward 3	Ward 4	Ward 5	Ward 6	Ward 7	Ward 8
All Causes									
Number	5,945	613	681	661	986	924	707	835	521
Rate	1.039.2	766.1	822.0	830.8	1.381.1	1.388.5	1.080.1	1.290.5	846.7
1. Heart Disease									
Number	1,566	162	192	203	259	227	164	240	118
Rate	273.7	202.5	231.8	255.1	362.8	341.1	250.5	370.9	191.8
2. Cancer									
Number	1,329	127	152	159	257	235	153	152	91
Rate	232.3	158.7	183.5	199.8	360.0	353.1	233.7	234.9	147.9
3. Hypertension									
Number	236	19	28	18	47	40	28	36	20
Rate	41.3	23.7	33.8	22.6	65.8	60.1	42.8	55.6	32.5
4. Cerebrovascular Diseases									
Number	226	20	16	45	32	31	27	32	23
Rate	39.5	25.0	19.3	56.6	44.8	46.6	41.2	49.5	37.4
5. HIV/AIDS									
Number	225	35	31	2	27	26	35	41	27
Rate	39.3	43.7	37.4	2.5	37.8	39.1	53.5	63.4	43.9
8. Diabetes									
Number	196	16	15	14	33	32	22	42	22
Rate	34.3	20.0	18.1	17.6	46.2	48.1	33.6	64.9	35.8

*Crude death rates are per 100,000 population.
Source: DC Department of Health, State Center for Health Statistics Administration, 2002.

Heart Disease

(DC Healthy People 2010 Chapter 15, Objectives 15-1 through 15-8; *Healthy People 2010* Chapter 12, Objectives 12-1 through 12-6)

Heart disease is the leading cause of death both in the District of Columbia and the United States. Although deaths due to heart disease have declined nationally by nearly one-third since 1980, most likely due to life style changes and improved medical technology, heart disease still kills almost as many people as do all the decreases combined (Brownson et al., 1998). Among District residents in 2000, heart disease had the highest mortality rate (273.7 per 100,000 population), which occurred for 1, 566 or 26.3 percent of all resident deaths. Heart disease is the leading cause of death both for women and men. The crude death rate for heart disease was the highest for Ward 7 (370.0 per 100,000), followed by Ward 4 (362.8 per 100,000), and the lowest for Ward 8 (191.9 per 100,000). This difference may also reflect the age of the population—Wards 4 and 7 have an older population, while Ward 8 has a younger population suggesting differences in age-specific deaths, in general, and by Ward in particular (Table 11).

A disproportionate number of deaths occurred among Blacks/African Americans (25.6 percent on average) in comparison to their share of the total population (approximately 60 percent). The highest mortality rate was for Blacks/African Americans (346 per 100,000), followed by Whites (202.2), Asian (32.9), and Hispanics (24.5). Among Hispanic/Latino residents, heart disease was also the leading cause of death, accounting for 18.6 percent of all Hispanic deaths in 2000.

Cancer

*(*DC Healthy People 2010 Chapter 12 Objectives 12:1-4; *Healthy People 2010 C*hapter 3. Objectives 3:2-5, 3-7*)*

Cancer is the second-ranked leading cause of death in both the United States and the District of Columbia. Of the 5,945 District resident deaths in 2000, 1,329 (22.4 percent) or about one in five died from cancer with a crude death rate of 232.3 per 100,000. With more than 3,000 new cases of cancer are reported each year, the District of Columbia has the highest incidence rates of cancer and ranks overall in cancer mortality rates in the U.S. (DOH, 2000). Incidence and mortality rates are highest for Blacks/African Americans who account for a majority of the District's residents. In 1998, the incidence rate for Black/African American males were 1.5 times higher than White males (326.1 per 100,000). Black/African American males had an age-adjusted mortality rate of 256 per 100,000, which was twice that of White males (128.7 per 100,000).

Cancer affects residents in every Ward, but Ward 4 (360 per 100,0000) had the highest rate of deaths, followed by Ward 5 (353.1 per 100,000), Ward 7 (234.9), and Ward 6 (233.7). Ward 8 had the lowest cancer mortality rate again a reflection partly on the age of the population in this Ward (Table 11).

Essential (Primary) Hypertension and Hypertensive Renal Disease (Hypertension)
*(*DC Healthy People 2010 Chapter 15: 2 through 15-5 address hypertension; *Healthy People 2010* Chapter 12, Objectives 12-9 through 12-12*)*

Hypertension is the third leading cause of death for the District of Columbia but ranked as the 13th leading cause of death (age-adjusted rate of 6.6) for the U.S in 2000. Among District residents in 2000, hypertension accounted for 236 (13.3 percent) or 1 in 7.5 of all deaths. The overall crude death rate was 41.3 and highest in Ward 4 (65.8), followed by Ward 5 (60.1), and Ward 7 (55.6). A hypertension mortality rate of 22.6 was the lowest for Ward 3 (Table 11).

Cerebrovascular Diseases (Stroke)
*(*DC Healthy People 2010 Chapter 15; *Healthy People 2010* Chapter 12. Objectives 12-7 through 12-8)

Cerebrovascular diseases also known as stroke is the fourth leading cause of death in 2000 but ranked third (age-adjusted rate of 60.9) in the United States. It is the number one cause of disability, with Blacks/African Americans more than twice as likely to suffer a stroke as Whites and more women dying from stroke each year than from breast cancer (DOH, 2000). In 2000, the crude death rate for cerebrovascular diseases was 39.5. A greater proportion of Whites than Blacks/African Americans die each year from stroke (approximately 5 percent vs. 3.4 percent). In addition, more women than men regardless of race die each year from stroke (4.5 vs. 3.1 percent). In 2000, the crude death rate for cerebrovascular diseases by Ward shows Wards 3 (56.6), 7 (49.5), and 5 (46.6), respectively, had the highest rates (Table 11).

According to the National Institute of Neurological Disorders and Stroke (2001), the majority of strokes can be prevented by management of hypertension, heart disease, and diabetes, including proper nutrition and smoking cessation. Transient ischemic attacks (TIAs), or small strokes lasting for only a few minutes or hours, are warning signs of a major stroke and should not be ignored. Accurate diagnosis of TIAs and other risk factors is needed to prevent strokes, and immediate treatment can minimize the long-term disabling effects of a cerebrovascular accident. Again, the mortality data suggest that District residents in general, and Black/African American residents in particular, often fail to take advantage of available life-saving interventions.

HIV/AIDS
*(*DC Healthy People 2010 Chapter 16 16-1 through 16-7; *Healthy People 2010* Chapter 13, Objectives 13-1, 13-8, 13-10, 13-13 through 113-16)

Acquired immune deficiency syndrome (AIDS) is caused by the human immunodeficiency virus (HIV) and is ranked the fifth leading cause of death in the District for 2000. Nationally, HIV/AIDS (age-adjusted rate 5.3) has not been on the list of 15 leading causes of death since 1997 (NCHS, vol 50 no 15, 2002). The crude death rate for the District in 2000 was 39.3 per 100,000 population. Age-adjusted mortality

rates for HIV/AIDS in the District of Columbia are higher in Blacks/African Americans than in any other race or ethnic group. In 1998, the age-adjusted rate for Blacks/African Americans was 60.8 per 100,000 compared with only 20.6 per 100,000 for the U.S. The age-adjusted rate is much lower in the White population (13 per 100,000). Males continue to be infected at considerably higher rates than females, although the number of infected females is rapidly rising. The majority of D.C. HIV/AIDS cases among males from 1995-1998 were African American at 79 percent, followed by White males at 22 percent (DOH, 1999). Of the 225 HIV/AIDS deaths, most deaths were in the 25-44 years age group (50.7 percent).

Consistent with the United States, deaths among people with HIV/AIDS continue to decline in the District. A disproportionate number of deaths occurred in Ward 7 (63.4) and Ward 6 (53.5). As there were only two HIV/AIDS deaths in Ward 3 (Table 11), the age-adjusted mortality rate may not be reliable.

Diabetes

(DC Healthy People 2010 Chapter 13, Objectives 13-1 through 13-11; *Healthy People 2010* Chapter 5, Objectives 5-1 through 5-3, 5-5, 5-9, 5-12, 5-13, 5-17)

Diabetes is ranked eight in the District of Columbia but sixth (age-adjusted rate of 25.2) in the United States in 2000. Diabetes is discussed along with the five leading causes of death because it is a chronic disease known to disproportionately afflict minorities, particularly Native Americans, Mexican Americans, and other Hispanics, as well as African Americans. Lack of timely, appropriate medical care may contribute to the complications of diabetes, such as lower extremity amputations, end state renal disease, heart disease, stroke, high blood pressure, and blindness. It is also contributes to the number of premature deaths in the United States and the District. As many diabetic actually die from complications of diabetes, rather than the disease itself, diabetes deaths alone understate the extent to which diabetes contributes to mortality.

The crude death rate for diabetes in 2000 was 34.3. Adult African Americans are 1.7 times as likely to have diabetes as non-Hispanic Whites; Mexican Americans and other Latinos are almost twice as likely to have the disease, and American Indians and Alaska Natives are 2.8 times as likely (CDC Diabetes Fact sheet, 1998). Diabetes disproportionately afflicts the population in Ward 7, with the highest death rate of 64.9. Ward 3 had the lowest mortality rate (17.6) in 2000 (Table 11).

Premature Deaths

Chronic diseases, including heart disease, stroke, cancer, and diabetes, account for more than 50 percent of all deaths in the District of Columbia. Today, influenza and pneumonia and HIV/AIDS are the only remaining infectious diseases accounting for a significant percentage of deaths in the District. In an analysis of the death certificate data in 2000, more than one-half of all deaths of District residents occur before the age of 75.

In 2000, the average life expectancy at birth for the United States was 76.9 years; therefore, any death occurring before the age of 75 can be considered premature. The

Table 11. Leading Causes of Premature Deaths Under Age 75 Years: District of Columbia Residents, 2000

Cause and Rank	Number	Percent*	Cause and Rank	Number	Percent*
All Causes <75 Years	3,212	100.0	**25-44 Years**		
1. Cancer	777	24.2	All Causes	573	99.9
2. Heart Disease	589	18.3	1. HIV/AIDS	114	19.9
3. HIV/AIDS	223	6.9	2. Homicide/Assault	73	12.7
4. Accidents	174	5.4	3. Cancer	69	12.0
5. Homicide/Assault	169	5.3	4. Accidents	65	11.3
Other causes	1,280	39.9	5. Heart	53	9.3
1-14 Years			Other Causes	199	34.7
All Causes	27	99.9	**45-64 Years**		
1. Accidents	7	25.9	All Causes	1,346	100.0
2. Congenital Anomalies	5	18.5	1. Cancer	353	26.2
3. HIV/AIDS	4	14.8	2. Heart	244	18.1
3. Homicide/Assault	4	14.8	3. HIV/AIDS	99	7.4
Other causes	7	25.9	4. Accidents	69	5.1
15-19 Years			5. Hypertension	64	4.8
All Causes	40	100.0	Other Causes	517	38.4
1. Homicide (Assault)	31	77.5	**65-74 Years**		
2. Accidents	6	15.0	All Causes	1,062	100.0
Other Causes	3	7.5	1. Heart	350	33.0
20-24 Years			2. Heart	289	27.2
All Causes	73	100.0	3. Hypertension	56	5.3
1. Homicide/Assault	50	68.5	4. Chronic Lower Respiratory Diseases	47	4.4
2. Suicide	7	9.6	5. Diabetes	43	4.0
3. Accidents	4	5.5	Other causes	277	26.1
Other Causes	12	16.4			

*Does not add to 100 due to rounding.
Source: DC Department of Health, State Center for Health Statistics Administration, 2002.

average life expectancy, however, for D.C. residents for 1989-1991 was 68.0 years. In 2000, a total of 3,212 or 54 percent of all resident deaths occurred before age 75 years. Cardiovascular diseases (i.e., heart disease and diseases of the arteries) and cancer accounted for 51.2 percent of premature deaths in 2000. These two major causes combined with infant mortality, HIV/AIDS, accidents, homicide, hypertension, and diabetes account for 78.6 of all premature deaths.

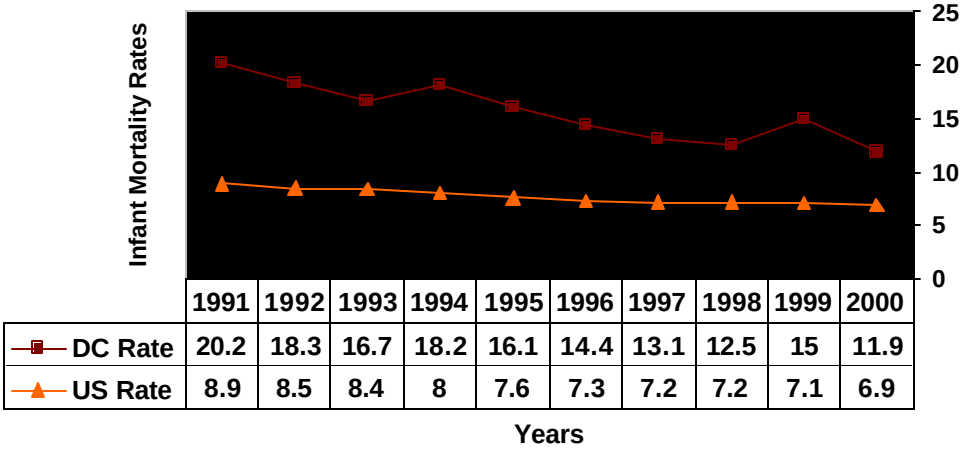
The leading causes of premature mortality in the District of Columbia follows a slightly different pattern from the leading causes of death for all ages Table 12). In 2000, cancer was the leading cause of premature mortality, followed by heart disease, HIV/AIDS, accidents, and homicide/assault. These five leading causes accounted for 60.1 percent of all premature deaths.

Infant Mortality

*(*DC Healthy People 2010 Chapter 9, Objective 9-1*; HP 2010* Chapter 16, Objective 16-1)

In 2000, the District of Columbia achieved the lowest infant mortality rate in its reporting history (11.9 infant deaths per 1,000 live births versus 6.9 deaths per 1,000 live births in the United States)—or number of deaths before one year of age per 1,000 live births (SCHSA, 2002). Figure 9 presents a ten-year infant mortality trend. The rate for Black/African American infants, the majority of D.C. newborns, fell from 18.5 per 1,000 live births in 1999 to 15.1 the following year (Figure 10).

Figure 9. District of Columbia and National Infant Mortality Rates, 1991-2000



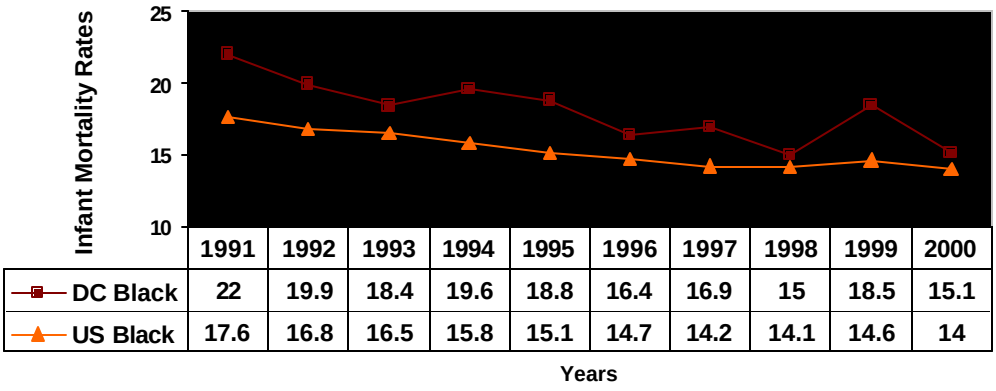
	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000
DC Rate	20.2	18.3	16.7	18.2	16.1	14.4	13.1	12.5	15	11.9
US Rate	8.9	8.5	8.4	8	7.6	7.3	7.2	7.2	7.1	6.9

Source: DC Department of Health, State Center for Health Statistics Administration, 2002.

The 2000 infant mortality rate in the District (11.9 per 1,000 live births) was a little more than one and one-half the national rate of 6.9 infant deaths per 1,000 live births in 2000

(SCHSA, 2002). The infant mortality rate to Black/African American mothers was 15.1 per 1,000 live births, 1.3 per 1,000 for White mothers, and 8.8 per 1,000 to Hispanic mothers. In 2000, the rate of infant mortality was highest in Ward 6 at 20.1 infant deaths per 1,000 live births, followed by Ward 8 (17.7), Ward 7 (17.4), Ward 5 (14.0), Ward 1 (9.4), and Ward 2 (7.6 deaths). Wards 3 and 4 are both below the national average, at 1.2 and 5.3 per 1,000, respectively. The majority of infant deaths—73.6 percent—occurred during the neonatal period (less than 28 days). The neonatal death rate was 8.7 per 1,000 live births in 2000. The postneonatal mortality rate (deaths occurring from 28 days to 364 days of life) was 3.1 per 1,000 live births in 2000. In 2000, the leading cause of infant deaths in the District was newborn affected by complications of placenta, cord, and membranes 14.4 percent, while congenital malformations, deformations, and chromosomal abnormalities (congenital malformations) was the leading cause for the U.S. Congenital malformations (11 percent) and newborns affected by maternal complications of pregnancy tied (11 percent) for the second-ranked leading cause of all infant deaths. The rate for the fourth leading cause of infant mortality, sudden infant death syndrome (SIDS), accounted for 9.9 percent of all infant deaths. Disorders related to short gestation and low birth weight (6.6 percent) and necrotizing enterocolitis (6.6 percent) tied for the fifth-ranked leading cause of all infant deaths in the District (Figure 11).

Figure 11. District of Columbia and National Infant Mortality Rates for Black, 1991-2000



	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000
DC Black	22	19.9	18.4	19.6	18.8	16.4	16.9	15	18.5	15.1
US Black	17.6	16.8	16.5	15.8	15.1	14.7	14.2	14.1	14.6	14

Source: D.C. Department of Health, State Center for Health Statistics Administration.

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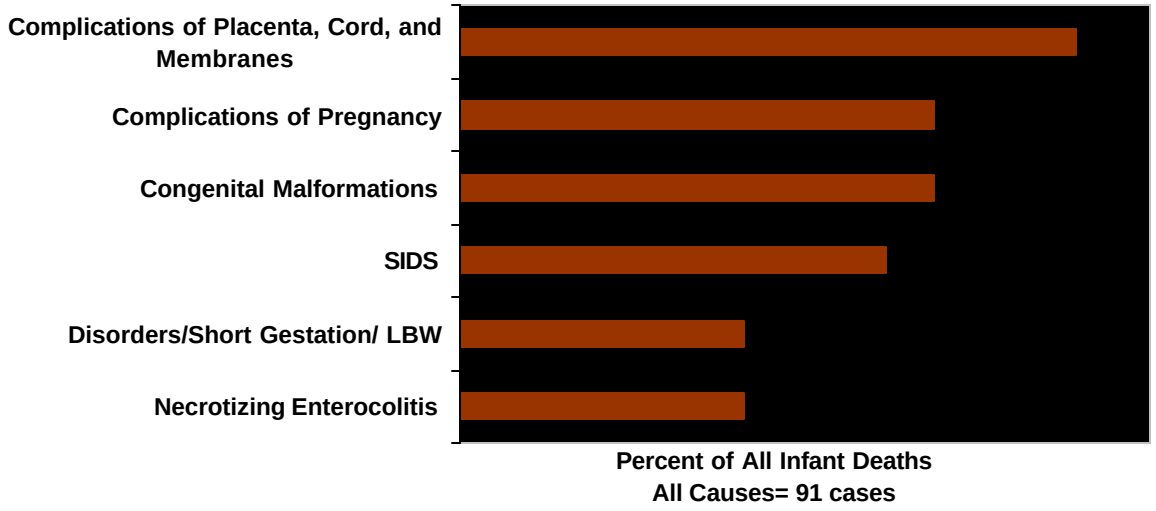
Figure 11. Leading Causes of Infant Death
District of Columbia, 2000



Note: SIDS = Sudden Infant Death Syndrome
Congenital Malformations include other deformations and chromosomal abnormalities.
Source: State Center for Health Statistics Administration.

According to the Centers for Disease Control and Prevention, birth weight and period of gestation are the two most important factors in infant health and survival (MacDorman & Atkinson, 1999). A very low birth weight (under 1,500 grams) is the predominant cause for mortality during the first 28 days of life, which in turn accounts for most infant mortality during the first year of life. The1999 mortality rate for these very low birth weight infants was 252.8 per 1,000 for all races; for African American women, the rate was 270.1 (MacDorman & Atkinson, 1999).

From 1999 to 2000, low birth weight births (infants weighing under 2,500 grams or 5.5 pounds) decreased by 10.5 percent in the District of Columbia, from 13.3 percent to 11,9 percent of all births. Low birth weight births to Black/African American mothers decreased from 16.3 percent to 14.1 percent and increased for White mothers from 6.4 percent to 6.8 percent of births for the same period. Low birth weight births to Hispanic mothers increased from 6.7 percent to 8.4 percent between 1999 and 2000. Births to teenage mothers (under 20 years) decreased overall from 14.8 percent of all births in 1999 to 14.2 percent of all births in 2000 (SCHSA, 2002), and the percent of women receiving adequate prenatal care increased sharply in 2000, from 59.0 in 1999 to 65.1 percent in a single year. The causes of increased mortality thus remain something of an enigma. Because the numbers were too small to establish statistical significance, they may represent a random variance.

It is clear that in general—and over time—the elevated local rates of births to unmarried women and teens, and low birth weight infants, particularly among African Americans, keep infant mortality well above the national average (Table 13). The District in 2000 compared unfavorably to the United States as a whole in the number of women receiving prenatal care in the first trimester, with one main exception—Whites in the District were slightly more likely than all Whites in the United States to enter care in the first trimester (90.1 percent vs. 85.0 percent); Hispanic women (74.7 percent) in the District faired about the same as Hispanic (74.4 percent) in U.S. Thus, the higher infant mortality rate for D.C. is largely a function of the size of the African American population, who fare worse than Whites on all perinatal indicators.

Taken together, the national and local disparities in infant mortality between African Americans and other groups, and the higher rates for African Americans in the District as compared to the national rates, point to the crucial need to find innovative ways to identify at-risk women of child-bearing age and bring them into family planning services. African Americans also show elevated rates for some of the most common causes of infant death, including low birth weight and maternal risk factors such as hypertension, obesity, physical inactivity, and smoking. Given the African American majority in the District of Columbia, it is therefore not surprising to find that the infant mortality rate for D.C. is well above that for the nation as a whole.

Table 13. Selected Maternal and Child Health Indicators for the United States And the District of Columbia, by Race and Hispanic Origin (1999-2000)

	All	White	Black	Hispanic
1999 Infant Mortality/1,000 Live Births				
D.C.	15.0	8.2	18.5	8.3
U.S.	7.1	5.8	14.6	---
2000 Infant Mortality/1,000 Live Births				
D.C.	11.9	*	15.1	8.8
U.S.	6.9	5.7	14.1	---
2000 Low Birth Weight (<2,500 grams)				
D.C.	11.9	6.8	14.1	8.4
U.S.	7.6	6.5	13.0	6.4
2000 Percent Receiving First Trimester Prenatal Care				
D.C.	75.3	90.1	70.2	74.7
U.S.	83.2	85.0	74.3	74.4

*Figure does not meet standards of reliability or precision.
Source: CDC, National Center for Health Statistics, National Vital Statistics Reports, Volume 50 number 5, February 12, 2002.

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Table 14. Indicators of Maternal Health, Child Health, and Mortality for the District of Columbia by Ward, 2000

Indicators	DC	Ward 1	Ward 2	Ward 3	Ward 4	Ward 5	Ward 6	Ward 7	Ward 8
Census Population 2000	572,059	80,014	82,845	79,566	71,393	66,548	65,457	64,704	61,532
Live Births	7,666	1,175	788	834	938	860	846	921	1,297
Rate/1,000 pop	13.4	14.7	9.5	10.5	13.1	12.9	12.9	14.2	21.1
Births to Unmarried Women	4,623	648	410	54	529	635	553	767	1,025
(Percent)	60.3	55.1	52.0	6.5	56.4	73.8	65.4	83.3	79.0
Births to Unmarried Women (Percent)									
Black	78.3	73.1	76.2	26.8	62.9	77.0	82.7	84.0	85.0
White	9.5	16.6	11.8	4.2	22.6	25.8	6.3	70.0	9.1
Hispanic	52.4	58.0	52.4	12.7	53.8	55.2	38.9	50.0	33.3
Births to Mothers <20 yr	1,086	139	99	6	115	155	138	184	250
(Percent)	14.2	11.8	12.6	0.7	12.3	18.0	16.3	20.0	19.3
Low Birth Weight Live Births[1]	913	121	91	65	91	114	106	124	201
(Percent)	11.9	10.3	11.5	7.8	9.7	13.3	12.5	13.5	15.5
Low BirthWeight[1] to teens <20 yr	117	19	12	1	7	15	15	18	30
(Percent)	10.8	13.7	12.1	16.7	6.1	9.7	10.9	9.8	12.0
Births With Adequate Prenatal Care (Percent)	65.1	70.0	63.8	81.9	70.0	64.5	63.5	59.1	53.4
Births With Prenatal Care Beginning First Trimester (Percent)	75.3	77.9	74.3	91.0	78.8	73.6	74.7	70.8	65.9
Infant Deaths (under I yr.)	91	11	6	1	5	12	17	16	23
Rate (per 1,000 live births)[2]	11.9	9.4	7.6	1.2	5.3	14.0	20.1	17.4	17.7

[1]Low birth weight (under 2,500 grams or 5 lbs. 8 oz.).
[2]Due to the small number of infant deaths, infant mortality rates are highly variable and should be interpreted cautiously.

Source: State Center For Health Statistics Administration

Child and Youth Mortality (Ages 1-19 Years)

Accidents were the leading cause of death for ages 1-14 years, which accounted for 25.9 percent of a total of 27 deaths for the age range 1-14 years (Table 12). In the 1-4 year age group, there were 15 deaths, an increase of one from 1999. Among children 5-9 years, deaths decreased by one, from eight to seven. Similarly, deaths among adolescents dropped from six to five in 2000.

Deaths to **teens ages 15-19 years** were mainly due to violent causes. Of the 40 total deaths in 2000, 37 deaths (92.5 percent) were through violent causes; deaths due to homicide totaled 31 (77.5 percent), followed by 6 (15 percent) accidental deaths. No suicides were reported in 2000 to this age group.

(See DC Healthy People 2010 Chapter 9 on Maternal, Infant, and Child Health, 9-3; *Healthy People 2010* Chapter 16, 16-2a, 16-2b, 16-3a, 16-3b)

Maternal Mortality

(DC Healthy People 2010 Chapter 9, Objective 9-5; *Healthy People 2010* Chapter 16, Objective 16-4)

In 1999, a total of two D.C resident women were reported to have died of maternal causes. No maternal deaths were reported in 2000. The maternal death rate for 1999 was 2.7 per 10,000 live births. In the U.S., a total of 391 women were reported to have died from maternal causes in 1999. The U.S. maternal rate was 9.9 per 100,000 live births.

Adult Mortality: Elderly (65 Years and Older)

The U.S. census indicated the District was home to 69,898 elderly persons, who accounted for 12.2 percent of the total population (572,059). This figure included 35, 919 individuals between 65 and 74 years of age, 24004 between 75 and 84 years of age, and 8,975 individuals aged 85 years and older. As the population continues to life longer as seen by the increasing life expectancy nationally, the need for health care among the elderly will increase. Three-quarters of all deaths in the United States occur among persons 65 years of age and older (Health United States, 2002, Table 33. A total of 3,794 (63.8 percent) District residents who died in 2000 were 65 years of age and older. Chronic diseases have caused most of their deaths among the elderly (Tables 12 and 15). The leading cause of death among the elderly aged 65 years and older was heart disease, 33.4 percent of all deaths in this age range (age-specific death rate was 1,837.5 per 100,000 population). The second leading cause of death for this age range was cancer (23.8 percent). In 2000, the death rate for cancer was 1,290.5 per 100,000 population. The third leading cause of death for the elderly was hypertension, followed by stroke, and influenza and pneumonia.

Table 15. Ten Leading Causes of Death to Residents Aged 75 Years and Older: District of Columbia, 2000

Cause and Rank	Number	Percent
All Causes	2,732	100.1
1. Heart	977	35.8
2. Cancer	552	20.2
3. Influenza and Pneumonia	140	5.1
4. Cerebrovascular Diseases (Stroke)	123	4.5
5. Hypertension	108	4.0
6. Chronic Lower Respiratory Diseases	103	3.8
7. Diabetes	101	3.7
8. Alzheimer's Disease	68	2.5
9. Septicemia	54	2.0
10. Kidney Disease	49	1.8
Other causes	457	16.7

Source: State Center for Health Statistics Administration.

IX. CONCLUSION

This chapter broadly reviewed factors relating to the health needs of residents of the District of Columbia, such as life expectancy, health disparities, race and ethnicity, socioeconomic status, and access to care along with *Healthy People 2010* priority areas. Health indicators in this chapter highlighted areas of disparity for racial and ethnic minorities compared to Whites in the District of Columbia. Compared to Whites, there were consistently large disparities in health indicators for Blacks/African Americans across all categories—life expectancy, health behaviors and risk factors, natality, morbidity, mortality, chronic diseases, infectious diseases, asthma, and pregnancy and maternal and child health outcomes. Vulnerable populations such as children, women in poverty, the elderly, language minorities, homeless, and inmates were not discussed specifically in this chapter, but rather the entire District of Columbia population as a whole. More detailed discussions regarding morbidity, uninsured, and barriers to access of care are presented in the Chapters on Health Promotion and Disease Prevention; Primary Care; and Major Health Status Issues.

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